

appeared to be no nest proper, the eggs being simply laid at the end of the tunnel, which was nowhere more than 6 or 8 inches below ground and as nearly as possible horizontal. Mr. DAVISON, to whom I gave the eggs as soon as I got to camp, identified them as those of a bee-eater and undoubtedly of *Nyctiornis amicta*.

The dimensions of the eggs are as follows:—

1.25 × 1.15 inches.

1.22 × 1.10 inches.

The eggs are now in the Singapore Museum.

H. J. K.

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#### NEST AND EGGS OF *HENICURUS* *RUFICAPILLUS*, TEMM.

On the 23rd July, 1891, while out collecting in the neighbourhood of our camp at Kuala Taban (Pahang Ulu) and looking out for birds up a small streamlet flowing through the thick jungle, I found a nest of *Henicurus ruficapillus* with three eggs in it. The hen bird was sitting on the nest, and flew off on my approach. I did not get a shot at her. The nest, which is shallow, cup-shaped, and 6 or 7 inches in diameter, is made entirely of moss and lined with the skeletons of leaves. It was built on to the side of an almost perpendicular rock, very much after the fashion of that of the water ouzel. Nest and eggs are now in the Singapore Museum.

The eggs are white spotted and blotched with light red and pale purplish red, the spots being larger and concentrated into a ring round the larger end. One egg was broken while blowing, the dimensions of the other two are as follows:—

0.97 × 0.66 inches.

0.90 × 0.68 inches.

H. J. K.

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#### ON THE OCCURRENCE OF *PETROSAVIA* IN PERAK.

During a short trip to Perak in February last, I collected a quantity of a small yellow saprophytic plant growing sporadically among the vegetation along the banks of the road

from the tea-gardens to Maxwell's Hill, and also on the Hermitage Hill. On examining it at leisure, I found it to agree very well with the description of a rare plant known as *Petrosavia stellata*, Becc., described and figured in the *Nuove Giornale Botanico Italiano*, iii 7, t. 1. BECCARI collected his specimens in Borneo, on Mount Poe, near Sarawak, at 3,000 feet altitude, and, as far as I am aware, it has not been collected there since, and it has not hitherto been recorded from the Malay Peninsula. It, therefore, forms another addition to the Bornean types to be met with in the Malay Peninsula.

*Petrosavia* is a slender, wiry, yellow herb with an underground rhizome, over three inches long, covered with small papery scale leaves. The stems rise from the end of the rhizome, one or more together, from three to seven inches tall, often slightly zigzag, and thickest at the base, where they are covered with numerous crowded sheathing leaves, lanceolate acuminate in shape, about  $\frac{1}{4}$  inch long. The stems are slenderer above, and the leaves fewer and smaller. The flowers are arranged in a corymbose raceme, they are small, one-eighth of an inch across, yellow, and on rather long ( $\frac{3}{4}$  inch) pedicels. The bracts resemble the upper leaves, and are about  $\frac{1}{8}$  inch long. There are two to each flower. The sepals are lanceolate acuminate, short and small. The petals much larger, ovate, blunt, alternating with the sepals. The stamens are six in number, three opposite the sepals, and three opposite the petals. Their filaments are shorter than the petals, thickened at the base and tapering upwards. The anthers are oblong, rounded, dorsifixed, the cells divergent at the base, and splitting along the edge. The pistils are three, connate at the base, widely spreading above. The ovaries are conical follicular, tapering to the small round stigmas. The carpels are three in number, and split on the inner and upper face nearly as far as the stigmas; they each contain about twelve elliptic, oblong, brown, nodulose seeds, which are full of oil and proteids, but contain no starch. Mr. PERCY GROOM, during his residence in Singapore, has examined them carefully under the microscope, and has discovered the embryo, which had escaped all other observers. It is very minute, and resembles

that of the parasitic *Monotropa*, or Indian pipe, of the English woods.

The plant is probably saprophytic, taking its nourishment from the decaying leaves in which it grows, but it is possible that it is parasitic on some other plant or tree. It frequents the drier parts of the wood, at from 2,000 to 3,000 feet elevation.

*Petrosavia* seems certainly to belong to the order *Liliaceæ*, an order but scantily represented in the Malayan region, but its affinity to any other liliaceous plant is very obscure. The whole order is most plentifully represented in the North temperate region, and in Africa and Australia, but species occur in almost every part of the globe. In the Malay Peninsula we have very few genera—*Dracæna*, with a number of species; *Smilax*, four or five; *Dianella*, one species; and a very curious plant, the *Tupistra* (?) *singaporiana*, Bak, found in Singapore many years ago by Dr. WALLICH, and never seen since, unless a remarkable plant, of which one specimen in fruit was found by myself and Mr. CURTIS in the *Cypripedium* valley on Penang Hill this spring, is this species. All these have berried fruit, but *Petrosavia* belongs to the capsule-bearing section of the order.

Mr. BAKER, in the Journal of the Linnean Society, vol. XVII, p. 492, and HOOKER in the *Genera Plantarum*, put it in the neighbourhood of *Tofieldia*, which in the latter work is classed with the section *Nartheciæ*, but it seems to me to be more nearly allied to the *Anthericæ*. It is, however, very distinct from any genus in either of these groups, and, owing to its peculiar habit (for it is the only known saprophytic liliacea), it is so modified that many of its characters throw no light on its relationship. Besides its saprophytic habit, it is almost unique in having the carpels of the capsule free from each other and spreading widely, and in the peculiar structure of the seeds. Our further researches into the Malayan flora may, we may hope, eventuate in discovering other liliaceous plants allied to *Petrosavia* which will enable us to clear up doubts as to its position.

H. N. R.

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